



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/595,498	06/16/2000	Jadie Soo Sun	Sony- 50P3801	9931

7590 05/30/2006

Wagner Murabito & Hao LLP
Two North Market Street
Third Floor
San Jose, CA 95113

EXAMINER

NOBAHAR, ABDULHAKIM

ART UNIT	PAPER NUMBER
----------	--------------

2132

DATE MAILED: 05/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/595,498

Applicant(s)

SUN, JADIE SOO

Examiner

Abdulahkim Nobahar

Art Unit

2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This communication is in response to applicant's response received on April 11, 2006.
2. Claims 1-3 and 5-6 are amended.

Response to Arguments

Applicants' arguments have been fully considered but they are not persuasive.

1. Applicants on page 9, lines 14-17 of the remarks argue that Ottesen does not disclose nor does Ottesen suggest sending a response for each packet received, as claimed. Moreover, the Applicant does not understand communicating with multimedia program to necessitate sending a response for each packet received, as claimed.

The examiner respectfully disagrees and asserts that Ottesen discloses a method for transferring source program signals representative of a multimedia program to and from a multimedia direct access storage device that is based (i.e., conform with) on OSI model of seven layers communication (see, for example, col. 18, lines 1-18; col. 7, line 30-67). According to the OSI model one of the functions that the data-link layer provides is to receive acknowledgement at the sender device from the receiving device for each frame (i.e., packet) that is transmitted (corresponding to the recited sending a response for each packet received). Also acknowledges is received at the transport

Art Unit: 2132

layer of the OSI model for every packet that is transmitted. The OSI model is very well known in the art and description for ISO/OSI standard can be found in almost every computer networking related book. Despite the knowledge of applicant on this matter three references are presented below as example in response to the applicant request on page 11, lines 1-4 of the remarks to introduce references. A copy of relevant pages of each reference is also attached to this office action for applicant review.

Microsoft Windows NT server, Networking Guide, "Technical Information and Tools for the Support Professional", Microsoft Press. Pages 14-20.

Custer Helen; Inside Windows NT, Microsoft Press. Pages 289-291.

Halsall, Fred; "Data Communications, Computer Networks and Open Systems", Fourth Edition. Pages 13-15 and 168-171.

2. Applicants on page 10, line 21-page 11, line 2 of the remarks argue that the applicant does not understand the OSI model to teach receiving all packets and sending all of said packets as a single group to a processing layer, as claimed.

In response to above, based on OSI model the messages are divided into packets at the transport layer of the sending device and they are gathered at the transport layer of the receiving device into the original message and sent to the upper

layers for processing (corresponding to the recited sending all of said packets as a single group to a processing layer) (see the above three references).

3. Applicants on page 11, lines 13-17 of the remarks argue that the clearinghouse is a unit separate from the end-user. As such, validation and authentication in Hurtado is performed by a separate unit, the clearinghouse unit. Independent Claim 1 distinguishes over Hurtado by reciting a limitation where the processing layer performs authentication and compliance where the processing layer and the communication layer are part the same device, the first device, as claimed.

In response to above, according to Hurtado, the server located at the clearinghouse, which is the receiving device in this case performs authentication and the end-user device is the sender device. The locations of devices do not make any difference in the way the communication and authentication is carried out. Moreover, based on the OSI model the session layer provides for authentication and resource-access security, which is a processing layer (see the above references).

4. Applicants on page 12, lines 14-19 of the remarks argue that Ottesen discloses that the fixed cell size simplifies the implementation of ATM switches and multiplexers while providing very high speeds. Accordingly, Ottesen teaches away from the recited limitation of negotiating the maximum size of the packets, as claimed because as disclosed by Ottesen, the fixed cell size is desirable as it simplifies the implementation while providing very high speeds.

The examiner respectfully disagrees and asserts that Ottesen discloses that using an ATM distribution network is a preferred method (see col. 12, lines 45-52), which is one option in networking and it is generally cell-based switching and multiplexing methodology. ATM method deals with the transferring of packets at the switches, which occurs at the physical layer of the OSI model. But based on the OSI model the maximum size of the packets is determined at the network layer (see the above references), which is corresponding to the recited negotiating the maximum size of the packets.

5. The examiner, however, in light of the above submission maintains the previous rejections as follows:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 5-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ottesen et al (6,208,804 b1; hereinafter Ottesen) in view of Hurtado et al (6,983,371 B1; hereinafter Hurtado) and further in view of Glasser et al (5,764,890; hereinafter Glasser).

Ottesen discloses a method for transferring source program signals representative of a multimedia program to and from a multimedia direct access storage device (col. 3, lines 25-52). The multimedia direct access storage device is preferably a component of a local set-top control unit that buffers some of the compressed program segments received from a multimedia server.

Hurtado discloses a global distribution system for digital content that protects the rights of content owners. Encrypted digital content is delivered from a first end user system to a second end user system for playing the content (col. 6, lines 25-48).

Glasser discloses method and system for inserting a secured server into an existing network, wherein the inserted server does not maintain a database of the authentication information therein (col. 3, lines 5-11).

Claim 1

Ottesen discloses:

a) Establishing a connection between said first device and said second device. See, for example, col. 7, lines 11-30, where the se-top control unit is corresponding to the recited first device and the server corresponds to the recited second device.

c) A communication layer of code coupled to said first device receiving at least one packet from said second device. See, for example, col. 9, lines 26-31 and col. 18,

Art Unit: 2132

lines 1-18, where the data-link layer corresponds to the recited communication layer of code.

d) Said communication layer of code sending a response to said second device for each of said packets received in step b). Ottesen discloses that the set-top controller system conforms to the Open System International (col. 18, lines 1-18) (i.e., the set-top unit communicates back and forth with the multimedia server during a communication session) and cooperates with the multimedia server in transmission of packets (col. 16, lines 55-62 and col. 21, lines 33-55). Additionally, Ottesen discloses that the packet transmission to the set-top unit uses header error check (col. 17, lines 55-67) and the set-top unit performs packet synchronization (col. 22, lines 37-48 and col. 43, lines 34-41). These require the set-top unit to transmit a response (i.e., an acknowledgment signal) to the multimedia server upon receiving each packet.

e) Said communication layer transferring all of said packets as a single group to a processing, layer of code coupled to said first device, wherein said processing code and said communication code are independent from each other. As stated above, the set-top unit conforms with the OSI model (See, for example, col. 18, lines 1-18), where the presentation and application layers correspond to the recited processing layer. According to the OSI model the packets are received individually in the data-link layer and then after some modification and arrangement (i.e., re-assembling the packets), they are sent to the application layer for a process.

Ottesen, however does not expressly disclose:

wherein said processing layer of code performs authentication and determining compliance with a copy protection scheme.

Hurtado teaches that a user establishes a secure connection (corresponding to the recited communication layer) with an authorization authority for the purpose of receiving permission to make use of a digital content (see, for example, col. 6, lines 25-48). Hurtado further teaches a scheme for authenticating the end-user (see, for example, col. 14, lines 44-58; col. 18, lines 15-24). Hurtado also teaches a method to determine whether a request for usage of a digital content comply with a copy protection scheme (see, for example, col. 11, lines 14-41; col. 22, lines 62-67).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement the abovementioned teachings of Hurtado in the system of Ottesen, because it would prevent unauthorized usage of a digital content and protecting the rights of the content owner (Hurtado, col. 74, lines 24-34).

Ottesen in view of Hurtado does not expressly disclose:

b) negotiating the maximum size of packets for transfer between said first device and said second device.

Glasser discloses:

e) negotiating the maximum size of said packets transferred between said first device and said second device. See col. 12, line 52-col. 13, line 45.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize an scheme to negotiate the maximum size of the packets as taught in Glasser in the system of Ottesen in view of Hurtado, because it would

enables the communicating devices to know the maximum size of the packets that other devices can handle and to select the appropriate size of the transmitting packets (Glasser, col. 13, lines 25-33).

Claim 2

Ottesen discloses:

- c1) Receiving a packet. See for example, col. 21, lines 42-55
- c2) Determining whether said packet is a fragmented packet and c3) if said packet is a fragmented packet, said communication layer of code storing said fragmented packet in a temporary buffer coupled to said first device. See for example, col. 22, lines 6-15.
- c4) If said received packet was not the last packet to be received from said second device, repeating steps b1) - b3). See for example, col. 22, lines 27-47.

Claim 3

Ottesen discloses:

The method of Claim 1, wherein step c) comprises the step of: c1) receiving an un-fragmented packet of data. See for example, col. 22, lines 37-48.

Claim 5

Ottesen discloses:

The method of Claim 1 wherein said packet in step c) comprises an audio/video control (AV/C) command. See for example, col. 21, lines 55-65.

Claim 6

Ottesen discloses:

The method of Claim 1 wherein step d) comprising the step of: d1) said communication layer of code sending an audio/video control (AV/C) response to said second device for, each of said packets received in step c). See for example, col. 21, line 65-col. 22, line10.

Claim 7

Ottesen discloses:

The method of Claim 1 wherein said connection in step a) is made via an IEEE 1394 serial cable. See for example, col. 7, lines 12-30.

Claim 8

Ottesen discloses:

The method of Claim 1 wherein said packet comprises information regarding said second device's compliance with a copy protection scheme. See for example, col. 13, lines 15-18, where verification of a subscriber to access multimedia program according to authorization rights corresponds to the recited a copy protection scheme.

Claim 9

Ottesen discloses:

In a first device for transferring a digital signal, a method of exchanging data between the first device and a second device comprising the steps of:

a) Establishing a connection between said first device and said second device.

See, for example, col. 7, lines 11-30, where the set-top control unit is corresponding to the recited first device and the server corresponds to the recited second device.

c) said communication layer of code sending at least one packet to said second device. See, for example, col. 18, lines 1-18, where the data-link layer corresponds to the recited communication layer of code and also Ottesen, col. 21, line 65-col. 22, line 10.

d) Said communication layer of code receiving a response from said second device for each of said packets sent in step c). Ottesen discloses that the communication between the set-top unit and the multimedia server conforms to the Open System International (Ottesen, col. 18, lines 1-18 and Fig. 3) (i.e., the set-top unit communicates back and forth with the multimedia server during a communication session) and cooperates with the multimedia server in transmission of packets (Ottesen, col. 16, lines 55-62 and col. 21, lines 33-55). Additionally, Ottesen discloses the use of header error check (HEC) for the packet transmission between the multimedia server and the set-top unit (Ottesen, col. 17, lines 55-67). Thus, the server sends responses for the packets that receive from the set-top unit.

e) Repeating steps c) and d) until all packets are sent. Ottesen discloses that prior to transmission of data packet to the customers a process of verification and authorization (i.e., authentication) of the subscriber is performed (See for example, Ottesen, col. 13, lines 10-20). This means that data packet containing subscriber's information is transmitted from the set-top unit to the multimedia server and would continue until all the required information reaches the server.

f) Said communication layer transferring a response to a processing layer of code coupled to said first device, wherein said communication layer of code and said processing layer of code are independent from each other, wherein fragmentation of said packets is transparent to said processing layer. As stated above, the set-top unit conforms with the OSI model (See, for example, Ottesen, col. 18, lines 1-18), where the network, presentation and application layers correspond to the recited processing layer. According to the OSI model the packets are received individually in the data-link layer and then after some modification and arrangement (i.e., reassembling the packets), they are sent to the higher layers for processing. The packet fragmentation and re-assembly, which happens at the data-link layer is separate and independent from the packet processing performed at the higher layers.

Ottesen, however, does not expressly disclose that at least one packet of authentication information is transmitted from the user device (i.e., the sink device) to the server (i.e., the source device) and said processing layer performs authentication and determines said second device's compliance with a copy protection scheme.

Hurtado teaches that the provider of the digital content (i.e., source) inspect the authenticity of the information (corresponding to the recited packet of authentication information) received from the end-user for authentication purposes (see, for example, col. 14, lines 44-58; col. 18, lines 15-24). Hurtado also teaches a method to determine whether a request for usage of a digital content comply with a copy protection scheme (see, for example, col. 11, lines 14-41; col. 22, lines 62-67).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement the abovementioned teachings of Hurtado in the system of Ottesen, because it would prevent unauthorized usage of a digital content and protecting the rights of the content owner (Hurtado, col. 74, lines 24-34)

Ottesen in view of Hurtado does not expressly disclose:

b) a communicating layer of code coupled to said first device negotiating the maximum size of packets transferred between said first device and said second device.

Glasser discloses:

b) a communicating layer of code coupled to said first device negotiating the maximum size of packets transferred between said first device and said second device.

See col. 12, line 52-col. 13, line 45.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize an scheme to negotiate the maximum size of the packets as taught in Glasser in the system of Ottesen in view of Hurtado, because it would enables the communicating devices to know the maximum size of the packets that other

Art Unit: 2132

devices can handle and to select the appropriate size of the transmitting packets (Glasser, col. 13, lines 25-33).

Claim 10

Ottesen in view of Hurtado discloses:

The method of Claim 9 wherein said first device is a sink device and said second device is a source device. See for example, Ottesen, col. 6, lines 18-34, where the multimedia server corresponds to the recited a source device.

Claim 11

Ottesen in view of Hurtado discloses:

The method of Claim 9 wherein said packet in step c) comprises an audio/video control (AV/C) command. See for example, Ottesen, col. 21, line 65-col. 22, line 10.

Claim 12

Ottesen in view of Hurtado discloses:

The method of Claim 9 wherein said response in step d) comprises a response to an audio/video control (AV/C) command. See for example, Ottesen, col. 21, lines 55-65.

Claim 13

Ottesen discloses:

A host device for processing digital audio/video signals comprising:

a) A processor coupled to a bus. See for example, col. 12, lines 33-41 and col. 42, lines 52-60, where the set-top unit is the host device.

b) A memory coupled to said bus. See for example, col. 20, lines 2-12.

c) A communication layer of code stored in said memory and, when run in said processor, operable to receive packets from a peripheral device connected to said bus via a communication link. See for example, col. 20, lines 2-37.

Said communication layer of code further operable to send a response to said peripheral device for each packet received from said peripheral device. See for example, col. 21, lines 55-65.

Said communication layer of code further operable to send all received packets as a single group to a processing layer of code stored in said memory. See for example, col. 21, lines 33-55.

Ottesen, however does not expressly disclose:

(d) A processing layer of code stored in said memory and, when executed in said processor, operable to perform authentication and key exchange and further operable to determine said peripheral device's compliance with a copy protection scheme, wherein fragmentation of said packets comprising authentication information is transparent to said processing layer operable to perform authentication and key exchange.

Hurtado teaches that the provider of the digital content (i.e., source) inspect the authenticity of the information (corresponding to the recited packet fragmentation) received from the end-user for authentication purposes (see, for example, col. 14, lines

Art Unit: 2132

44-58; col. 18, lines 15-24). Hurtado also teaches a method to determine whether a request for usage of a digital content comply with a copy protection scheme (see, for example, col. 11, lines 14-41; col. 22, lines 62-67).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement the abovementioned teachings of Hurtado in the system of Ottesen, because it would prevent unauthorized usage of a digital content and protecting the rights of the content owner (Hurtado, col. 74, lines 24-34)

Ottesen in view of Hurtado, however does not expressly disclose:

a communication layer of code operable to negotiating the maximum size of said packets transferred between said host device and said peripheral device.

Glasser discloses:

a communication layer of code operable to negotiating the maximum size of said packets transferred between said host device and said peripheral device. See col. 12, line 52-col. 13, line 45.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize an scheme to negotiate the maximum size of the packets as taught in Glasser in the system of Ottesen in view of Hurtado, because it would enables the communicating devices to know the maximum size of the packets that other devices can handle and to select the appropriate size of the transmitting packets (Glasser, col. 13, lines 25-33).

Claim 14

Ottesen in view of Hurtado discloses:

The device for processing digital audio/video signals of Claim 13 wherein: said host device further comprises a temporary buffer stored in said memory. See for example, Ottesen, col. 20, lines 12-22.

Wherein said communication layer of code is further operable to determine whether said packets received in step c) are fragmented packets; and wherein said communication layer of code is further operable to store said fragmented packets in, said temporary buffer. See for example, Ottesen, col. 20, lines 23-37 and col. 22, lines 6-15.

Claim 15

Ottesen in view of Hurtado discloses:

The device for processing digital audio/video signals of Claim 13 wherein one of said packet in c) comprises an audio/video control (AV/C) command. See for example, Ottesen, col. 21, lines 55-65.

Claim 16

Ottesen in view of Hurtado discloses:

The device for processing digital audio/video signals of Claim 13 wherein said response in d) comprises a response to an audio/video control AV/C command. See for example, Ottesen, col. 21, line 65-col. 22, line 10.

Art Unit: 2132

Claim 17

Ottesen in view of Hurtado discloses:

The device for processing digital audio/video signals of Claim 13 wherein said host device is a sink device. See for example, Ottesen, col. 20, lines 2-12, where the set-top unit corresponds to the recited a sink device.

Claim 18

Ottesen in view of Hurtado discloses:

The device for processing digital audio/video signals of Claim 13 wherein said host device is a source device. See for example, Ottesen, col. 8, lines 24-50, where the server corresponds to the recited a source device and functions as embodied in claim 13 particularly when receiving packets from the sink device to authorize the subscriber (Ottesen, col. 13, lines 10-20).

Claim 19

Ottesen in view of Hurtado discloses:

The device for processing digital audio/video signals of Claim 13 wherein said host device seeks full authentication. See for example, Ottesen, col. 13, lines 10-20.

Claim 20

Ottesen in view of Hurtado discloses:

The device for processing digital audio/video signals of Claim 13 wherein said host device seeks restricted authentication. See for example, Ottesen, col. 13, lines 10-20, where the authorization rights correspond to the recited restricted authentication.

Claim 21

Ottesen in view of Hurtado discloses:

The device for processing digital audio/video signals of Claim 13 wherein said packets comprise information, which defines that the peripheral device sending the packet is compliant with a copy protection scheme. See for example, Ottesen, col. 13, lines 10-20, where verification of a subscriber to access multimedia program according to authorization rights corresponds to the recited a copy protection scheme.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2132

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdulhakim Nobahar whose telephone number is 571-272-3808. The examiner can normally be reached on M-T 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abdulhakim Nobahar
Examiner
Art Unit 2132 *an.*

May 11, 2006

Gilberto 3 ✓
GILBERTO BARRON JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100